(BSP January 27, 2003)

Placing Expansion Joint Sealant

The Contractor shall have the services of a qualified sealant manufacturer's technical representative physically present at the job site to assist in assuring the proper installation of the rapid cure silicone sealant, provide technical assistance for the use of the joint sealant, train the Contractor's personnel installing the joint sealant, and to observe and inspect the installation of at least the first complete joint.

Prior to scarifying the concrete deck for the modified concrete overlay, the Contractor shall remove all expansion joint materials and debris from the existing expansion joints, and shall dispose of these materials and debris as specified in Section 2-02.3.

Prior to placing the modified concrete overlay, the Contractor shall install a temporary form as shown in the Plans to fill the expansion joint gap. The temporary form shall preserve the expansion joint gap during the modified concrete overlay placement, and shall not damage the joint or the concrete overlay upon removal. The Contractor shall submit the type of temporary form material, and the method of installation and removal, to the Engineer for approval. The Contractor shall not begin modified concrete overlay placement operations until receiving the Engineer’s approval of the temporary form submittal.

The joint sealant shall not be placed against fresh concrete (including concrete overlay except for polyester concrete overlay) until at least seven days after concrete placement.

After placing the modified concrete overlay and chamfering the overlay at the joints as shown in the Plans, the Contractor shall clean the bridge expansion joints of all temporary forms, dirt, form oil, grease, and other deleterious material. The Contractor shall clean and prepare the entire joint surface receiving the joint sealant in accordance with the joint preparation procedure as approved by the Engineer, and as recommended by the sealant manufacturer's technical representative, including two stage abrasive blasting surface preparation and compressed air cleaning. All steel surfaces to be in contact with the joint sealant shall be cleaned to an SSPC-SP10 condition. The joint receiving the sealant shall be sound, clean, dry, and frost free.

If Dow Corning 902 RCS Joint Sealant is used, the Contractor shall apply the primer, as recommended by the sealant manufacturer, to all surfaces to be in contact with the joint sealant. On steel surfaces, the primer shall be dry to the touch prior to applying the joint sealant. On concrete surfaces, the primer shall cure at least 60 minutes prior to applying the joint sealant.

After the cleaned and prepared joint has received the Engineer's approval for joint dimensions, alignment, and preparation, the Contractor shall prime the bridge expansion joint surfaces, place the backer rod, and place the rapid cure silicone sealant in accordance with the joint installation procedure as approved by the Engineer, and as recommended by the sealant manufacturer's technical representative.

If the joint width at the time of installation is less than 10 millimeters or greater than 75 millimeters, the Contractor shall not proceed with the expansion joint modification until the installation procedure is revised as recommended by the sealant manufacturer's technical representative and as approved by the Engineer.

After installing the rapid cure silicone sealant, the Contractor shall flood the joint area with water and test the joint for leakage. If leakage is detected, the bridge expansion joint system shall be repaired by the Contractor, as recommended by the sealant manufacturer and approved by the Engineer, at no additional expense to the Contracting Agency.